



BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of Work:Improvements to roads and drains at
Ambabhavani Layout (Part-1)In Ward No.03**

YELAHANKA DIVISION

EMB

1st & Final Bill



BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of Work: Improvements to roads and drains at
Ambabhavani Layout (Part-1) In Ward No.03**

YELAHANKA DIVISION

DETAILED-MEASUREMENTS

**Name of Contractor : Sri.Umesh N
Estimated Cost:60.00 Lakh
Job Code:003-21-000036**

BRUHATH BANGALORE MAHANAGARAPALIKE

YELAHANKA ZONE

1ST AND FINAL BILL

Name of work: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03

Work Order No: BBMP / EE/ YNK.D/EPMT-9/ W.O /260/2020-21 dt:19-03-2021

JOB NUMBER:003-21-000036

Estimate Cost:60.00 lakhs

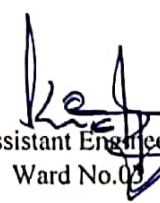
Name of Contractor : Sri.Umesh N

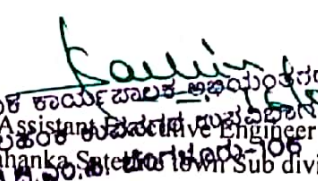
Item No	Description of Item	No	Length	Breadth	D1	D2	Avg Depth	Unit	Qty	Rate in Rs	Amount
1	Earthwork excavation by manual means for roads, drains & similar works in ordinary soil involving , excavated surface leveled & sides neatly dressed , the disposed earth to be levelled neatly after breaking of clods complete as per specification MORTH/ Chapter 3.										
	Qty Taken from Pre measurement page Item No. 1, page No.1	Cum							986.15	207.60	204723.70
2	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications.										
	Qty Taken from Pre measurement page Item No. 2, Page No.2	Cum							63.35	5509.33	349013.09
3	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm										
	For Bottom Raft										
	For RCC drain										
	Ambabhavani Layout										
	9th Cross From Main Road										
	LHS	1	30.00	0.95	0.15	0.15	0.15		4.28		
		1	30.00	0.95	0.15	0.15	0.15		4.28		
		1	30.00	0.95	0.15	0.15	0.15		4.28		
		1	18.00	0.95	0.15	0.15	0.15		2.57		
	RHS	1	30.00	0.95	0.15	0.15	0.15		4.28		
		1	30.00	0.95	0.15	0.15	0.15		4.28		
		1	30.00	0.95	0.15	0.15	0.15		4.28		
		1	18.00	0.95	0.15	0.15	0.15		2.57		
	Cross road from 9th-12th cross										
	LHS	1	30.00	0.95	0.15	0.15	0.15		3.02		
		1	30.00	0.95	0.15	0.15	0.15		3.53		
	RHS	1	30.00	0.95	0.15	0.15	0.15		4.28		
		1	22.30	0.95	0.15	0.15	0.15		3.18		
	Cross road from 8th-9th cross										
	LHS	1	12.00	0.95	0.15	0.15	0.15		1.71		
	12th cross										
	LHS	1	30.00	0.95	0.15	0.15	0.15		4.28		
		1	14.00	0.95	0.15	0.15	0.15		2.00		
	For RCC Culvert										
	Culvert @ 9th cross	1	8.50	1.60	0.20	0.20	0.20		2.72		
	For RCC Side Wall										
	For RCC drain										

Item No	Description of Item	No	Length	Breadth	D1	D2	Avg Depth	Unit	Qty	Rate in Rs	Amount
	Ambabhavani Layout										
	9th Cross From Main Road										
	LHS	2	30.00	0.15	0.65	0.70	0.68		6.08		
		2	30.00	0.15	0.70	0.70	0.70		6.30		
		2	30.00	0.15	0.70	0.65	0.68		6.08		
		2	18.00	0.15	0.65	0.65	0.65		3.51		
	RHS	2	30.00	0.15	0.65	0.70	0.68		6.08		
		2	30.00	0.15	0.70	0.65	0.68		6.08		
		2	30.00	0.15	0.65	0.70	0.68		6.08		
		2	18.00	0.15	0.70	0.65	0.68		3.65		
	Cross road from 9th-12th cross										
	LHS	2	21.20	0.15	0.65	0.70	0.68		4.29		
		2	24.80	0.15	0.70	0.65	0.68		5.02		
	RHS	2	30.00	0.15	0.65	0.70	0.68		6.08		
		2	22.30	0.15	0.70	0.65	0.68		4.52		
	Cross road from 8th-9th cross										
	LHS	2	12.00	0.15	0.65	0.70	0.68				
	12th cross										
	LHS	2	30.00	0.15	0.65	0.70	0.68		6.08		
		2	14.00	0.15	0.70	0.70	0.70		2.94		
	For RCC Culvert										
	Culvert @ 12th cross	2	8.50	0.30	0.60	0.60	0.60		3.06		
	Deck Slab For RCC Culvert										
	Culvert @ 12th cross	1	8.50	1.50	0.20	0.20	0.20		2.55		
	Ramp For RCC Culvert										
	Culvert @ 12th cross	2	8.50	0.75	0.15	0.15	0.15		1.91		
	Present Qty							Cum	138.19	7189.42	993512.89
4	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications, TMT Bars Fe-500										
	Qty Taken from Pre measurement page Item No.4, Page No.3 to 4	Tonne							9.04	65046.90	587904.32
5	Providing and fixing Precast RCC cover slabs of 100 mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement and pointing for joints 1:3 cement mortar including form work, lift charges, curing and concrete finished surface on both sides etc, and complete as per the directions of Engineer in charges. (Data Rate)										
	For RCC drain										
	Ambabhavani Layout										
	9th Cross From Main Road										
	LHS	1	30.00	0.90					27.00		
		1	30.00	0.90					27.00		
		1	30.00	0.90					27.00		
		1	18.00	0.90					16.20		
	RHS	1	30.00	0.90					27.00		
			30.00	0.90					27.00		
			30.00	0.90					27.00		
			30.00	0.90					27.00		
			30.00	0.90					27.00		
	Cross road from 9th-12th cross								16.20		
	LHS	1	24.80	0.90					19.08		
									22.32		

Item No	Description of Item	No	Length	Breadth	D1	D2	Avg Depth	Unit	Qty	Rate in Rs	Amount
	RHS										
		1	30.00	0.90					27.00		
		1	22.30	0.90					20.07		
	Cross road from 8th-9th cross										
	LHS	1	12.00	0.90					10.80		
	12th cross										
	LHS	1	30.00	0.90					27.00		
		1	14.00	0.90					12.60		
	Missing Slabs										
		8	10.60	0.90					4.32		
				0.90					5.40		
								Present Qty	Sqm	342.99	2337.00 801567.63
6	Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occurring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3										
	Qty Taken from Pre measurement page Item No.6, Page No.5							Sqm	2256.00	6.36	14348.16
7	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap I basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406										
	Qty Taken from Pre measurement page Item No.7, Page No.6							Cum	451.20	2001.28	902977.54
8	Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502										
	Qty Taken from Pre measurement page Item No.8, Page No.7							Sqm	2256.00	29.68	66958.08
9	Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen										
	Qty Taken from Pre measurement page Item No.9, Page No.8							Cum	112.80	6407.70	722788.56
10	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification										
	Qty Taken from Pre measurement page Item No.10, Page No.9							Sqm	2256.00	5.30	11956.80
11	Providing and applying tack coat using 80/100 grade bitumen(VGIO) on the prepared black topped surfaces at 2.5 kg per 10sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH										
	Qty Taken from Pre measurement page Item No.11, Page No.10							Sqm	2256.00	12.72	28696.32

Item No	Description of Item	No	Length	B1	B2	Avg Breadth	Depth	Unit	Qty	Rate in Rs	Amount
12	Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 40 mm) with 5.4 % VG-30 Bitumen										
	For Asphalt Road										
	Ambabhavani Layout										
	9th Cross From Main Road										
		1	30.00	6.00	5.85	5.93	0.04		7.11		
		1	30.00	5.85	5.60	5.73	0.04		6.87		
		1	30.00	5.60	5.70	5.65	0.04		6.78		
		1	18.00	5.70	5.60	5.65	0.04		4.07		
	1st Main Road From Ambabhavani										
		1	30.00	7.30	7.00	7.15	0.04		8.58		
		1	30.00	7.00	6.95	6.98	0.04		8.37		
		1	30.00	6.95	6.95	6.95	0.04		8.34		
		1	30.00	6.95	6.85	6.90	0.04		8.28		
		1	30.00	6.85	7.00	6.93	0.04		8.31		
		1	30.00	7.00	7.00	7.00	0.04		8.40		
		1	17.00	7.00	6.70	6.85	0.04		4.66		
	1st B Cross Road From 1st Main Road										
		1	30.00	5.40	5.20	5.30	0.04		6.36		
		1	30.00	5.20	5.00	5.10	0.04		6.12		
		1	4.00	5.00	5.00	5.00	0.04		0.80		
	Present Qty							Cum	93.05		
	Limited to Qty							Cum	90.24	7355.34	663745.882
	Total									5348192.97	
	GST Charges 12%									641783.16	
	Grand Total									5989976.12	


 Assistant Engineer
 Ward No. 03
 16/6/2021


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 Assistant Engineer
 Pelahanka Sub division
 16/6/2021





BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of Work: Improvements to roads and drains at
Ambabhavani Layout (Part-1) In Ward No.03**

YELAHANKA DIVISION

PRE-MEASUREMENTS

Name of work:Improvements to roads and drains at Ambabhavani Layout (Part-1)In Ward No.03									
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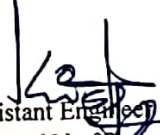
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Assistant Engineer
Ward No. 03

20/3/2021

Asst. Executive Engineer,
Yelahanka Satellite town Sub division

Name of work: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03									
Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
2	Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications.								
	For RCC drain								
	Ambabhavani Layout								
	9th Cross From Main Road								
	LHS	1	30.00	1.10	1.10	1.10	0.15	4.95	
		1	30.00	1.10	1.10	1.10	0.15	4.95	
		1	30.00	1.10	1.10	1.10	0.15	4.95	
		1	18.00	1.10	1.10	1.10	0.15	2.97	
	RHS	1	30.00	1.10	1.10	1.10	0.15	4.95	
		1	30.00	1.10	1.10	1.10	0.15	4.95	
		1	30.00	1.10	1.10	1.10	0.15	4.95	
		1	18.00	1.10	1.10	1.10	0.15	2.97	
	Cross road from 9th-12th cross								
	LHS	1	21.20	1.10	1.10	1.10	0.15	3.50	
		1	24.80	1.10	1.10	1.10	0.15	4.09	
	RHS	1	30.00	1.10	1.10	1.10	0.15	4.95	
		1	22.30	1.10	1.10	1.10	0.15	3.68	
	Cross road from 8th-9th cross								
	LHS	1	12.00	1.10	1.10	1.10	0.15	1.98	
	12th cross								
	LHS	1	30.00	1.10	1.10	1.10	0.15	4.65	
		1	14.00	1.10	1.10	1.10	0.15	2.31	
	For RCC Culvert								
	Culvert @ 9th cross	1	8.50	2.00	2.00	2.00	0.15	2.55	
Present Qty								63.35	Cum


 Assistant Engineer
 Ward No.03
 25/3/2021

Asst. Executive Engineer,
 Yelahanka Satellite town Sub division



Name of work: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03

Item No	Discription of Item	No of Bars	Cutting Length of Bar	Weight /m in Kgs	Qty	Unit
4	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3					
	Ambabhavani Layout					
	For RCC Drain					
	9th Cross					
	LHS					
	Total Drain length=108.00 Mtr					
	Main bar 10mm dia bar @ 125mm c/c					
	0.62kg/mtr					
		864	2.30	0.62	1232.06	
	Distribution bar 10mm dia @ 125mm c/c					
	0.62kg/mtr	19	108.00	0.62	1272.24	
	RHS					
	Total Drain length=108.00 Mtr					
	Main bar 10mm dia bar @ 125mm c/c					
	0.62kg/mtr					
		864	2.30	0.62	1232.06	
	Distribution bar 10mm dia @ 125mm c/c					
	0.62kg/mtr	19	108.00	0.62	1272.24	
	Cross road from 9th-12th cross					
	LHS					
	Total Drain length=21.20 Mtr					
	Main bar 10mm dia bar @ 125mm c/c					
	0.62kg/mtr					
		170	2.30	0.62	241.82	
	Distribution bar 10mm dia @ 125mm c/c					
	0.62kg/mtr	19	21.20	0.62	249.74	
	Total Drain length=24.80 Mtr					
	Main bar 10mm dia bar @ 125mm c/c					
	0.62kg/mtr					
		198	2.30	0.62	282.92	
	Distribution bar 10mm dia @ 125mm c/c					
	0.62kg/mtr	19	24.80	0.62	292.14	
	RHS					
	Total Drain length=52.30 Mtr					
	Main bar 10mm dia bar @ 125mm c/c					
	0.62kg/mtr					

No	Description of Item	No of Bars	Cutting Length of Bar	Weight /m in Kgs	Qty	Unit
	Distribution bar 10mm dia @ 125mm c/c	418	2.30	0.62	596.64	
	0.62kg/mtr					
	Cross road from 8th-9th cross	19	52.30	0.62	616.09	
	LHS					
	Total Drain length=12.00 Mtr					
	Main bar 10mm dia bar @ 125mm c/c					
	0.62kg/mtr					
		96	2.25	0.62	133.92	
	Distribution bar 10mm dia @ 125mm c/c					
	0.62kg/mtr	18	12.00	0.62	133.92	
	12th cross					
	LHS					
	Total Drain length=44.00 Mtr					
	Main bar 10mm dia bar @ 125mm c/c					
	0.62kg/mtr					
		352	2.30	0.62	501.95	
	Distribution bar 10mm dia @ 125mm c/c					
	0.62kg/mtr	19	44.00	0.62	518.32	
	For RCC Culvert					
	Culvert @ 9th cross					
	Total Drain length=8.50m					
	Main bar 12mm dia bar @ 150mm c/c					
	0.89kg/mtr					
	Top	57	2.70	0.89	136.17	
	Bottom	57	2.70	0.89	136.17	
	Distribution bar 10mm dia @ 150mm c/c					
	0.61kg/mtr	18	8.50	0.62	94.86	
	Bottom	18	8.50	0.62	94.86	
	Present Qty				9038.16	Kg
	Present Qty				9.04	Tonne

Assistant Engineer
Ward No. 08 - 30/3/2021

Asst. Executive Engineer
Yelahanka Satellite town Sub division

Name of work:Improvements to roads and drains at Ambabhavani Layout (Part-1)In Ward No.03

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Assistant Engineer
Ward No.03

23/3/2021

Asst. Executive Engineer,
Yelahanka Satellite town Sub division



Name of work: Improvements to roads and drains at Ambabhavani Layout (Part-I) In Ward No.03

Item No	Description of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
7	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	For Asphalt Road								
	Ambabhavani Layout								
	9th Cross From Main Road								
		1	30.00	6.00	5.85	5.93	0.20	35.55	
		1	30.00	5.85	5.60	5.73	0.20	34.35	
		1	30.00	5.60	5.70	5.65	0.20	33.90	
		1	18.00	5.70	5.60	5.65	0.20	20.34	
	1st Main Road From Ambabhavani Temple Road								
		1	30.00	7.30	7.00	7.15	0.20	42.90	
		1	30.00	7.00	6.95	6.98	0.20	41.85	
		1	30.00	6.95	6.95	6.95	0.20	41.70	
		1	30.00	6.95	6.85	6.90	0.20	41.40	
		1	30.00	6.85	7.00	6.93	0.20	41.55	
		1	30.00	7.00	7.00	7.00	0.20	42.00	
		1	17.00	7.00	6.70	6.85	0.15	17.47	
	1st B Cross Road From 1st Main Road								
		1	30.00	5.40	5.20	5.30	0.20	31.80	
		1	30.00	5.20	5.00	5.10	0.20	30.60	
		1	4.00	5.00	5.00	5.00	0.20	4.00	
							Present Qty	459.41	Cum
							Limited to Qty	451.20	Cum

Assistant Engineer
Ward No.03

8/4/2021

Asst. Executive Engineer,
Yelahanka Satellite town Sub division

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Assistant Engineer
Ward No.03

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Name of work: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03									
Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
10	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501								
	Ambabhavani Layout								
	For Asphalt Road								
	Ambabhavani Layout								
	9th Cross From Main Road								
		1	30.00	6.00	5.85	5.93		177.75	
		1	30.00	5.85	5.60	5.73		171.75	
		1	30.00	5.60	5.70	5.65		169.50	
		1	18.00	5.70	5.60	5.65		101.70	
	1st Main Road From Ambabhavani Temple Road								
		1	30.00	7.30	7.00	7.15		214.50	
		1	30.00	7.00	6.95	6.98		209.25	
		1	30.00	6.95	6.95	6.95		208.50	
		1	30.00	6.95	6.85	6.90		207.00	
		1	30.00	6.85	7.00	6.93		207.75	
		1	30.00	7.00	7.00	7.00		210.00	
		1	17.00	7.00	6.70	6.85		116.45	
	1st B Cross Road From 1st Main Road								
		1	30.00	5.40	5.20	5.30		159.00	
		1	30.00	5.20	5.00	5.10		153.00	
		1	4.00	5.00	5.00	5.00		20.00	
							Present Qty	2326.15	Sqm
							Limited to Qty	2256.00	Sqm

Assistant Engineer
Ward No.03

14/6/2021

Asst. Executive Engineer,
Yelahanka Satellite town Sub division

Name of work: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03

Item No	Discription of Item	No	Length	B1	B2	Avg Breadth	Depth	Qty	Unit
11	Providing and applying tack coat using 80/100 grade bitumen(VGIO) on the prepared black topped surfaces at 2.5 kg per 10sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH								
	Ambabhavani Layout								
	For Asphalt Road								
	Ambabhavani Layout								
	9th Cross From Main Road								
		1	30.00	6.00	5.85	5.93		177.75	
		1	30.00	5.85	5.60	5.73		171.75	
		1	30.00	5.60	5.70	5.65		169.50	
		1	18.00	5.70	5.60	5.65		101.70	
	1st Main Road From Ambabhavani Temple Road								
		1	30.00	7.30	7.00	7.15		214.50	
		1	30.00	7.00	6.95	6.98		209.25	
		1	30.00	6.95	6.95	6.95		208.50	
		1	30.00	6.95	6.85	6.90		207.00	
		1	30.00	6.85	7.00	6.93		207.75	
		1	30.00	7.00	7.00	7.00		210.00	
		1	17.00	7.00	6.70	6.85		116.45	
	1st B Cross Road From 1st Main Road								
		1	30.00	5.40	5.20	5.30		159.00	
		1	30.00	5.20	5.00	5.10		153.00	
		1	4.00	5.00	5.00	5.00		20.00	
							Present Qty	2326.15	Sqm
							Limited to Qty	2256.00	Sqm

Assistant Engineer
Ward No.03

16/6/2021

Asst. Executive Engineer,
Yelahanka Satellite town Sub division